EXHIBIT NO. ____

3-18-06

Docket Item #11 MASTER PLAN AMENDMENT#2006-0001

Planning Commission Meeting March 9, 2006

ISSUE:

Consideration of a request for an amendment to the City's Master Plan, adopting the Four Mile Run Restoration Master Plan as a chapter of the Master Plan.

<u>PLANING COMMISSION ACTION, MARCH 9, 2006:</u> On a motion by Mr. Komoroske, seconded by Ms. Fossum, the Planning Commission approved the master plan amendment, with the revision to the text boxes on pages 19 and 48 of the Four Mile Run Restoration Master Plan (see Attachment 4). The vote carried on a 5-0 vote; Mr. Dunn and Mr. Jennings were absent.

<u>Reason:</u> The Commission endorsed the long work by many parties on the Four Mile Run Restoration Master Plan. Having been involved in the process itself, the Commission noted how inclusive it was and thanked staff and involved citizens for their efforts. The Commission stated that it looked forward to working with staff in the future as the goals of the Master Plan are implemented.

Speakers:

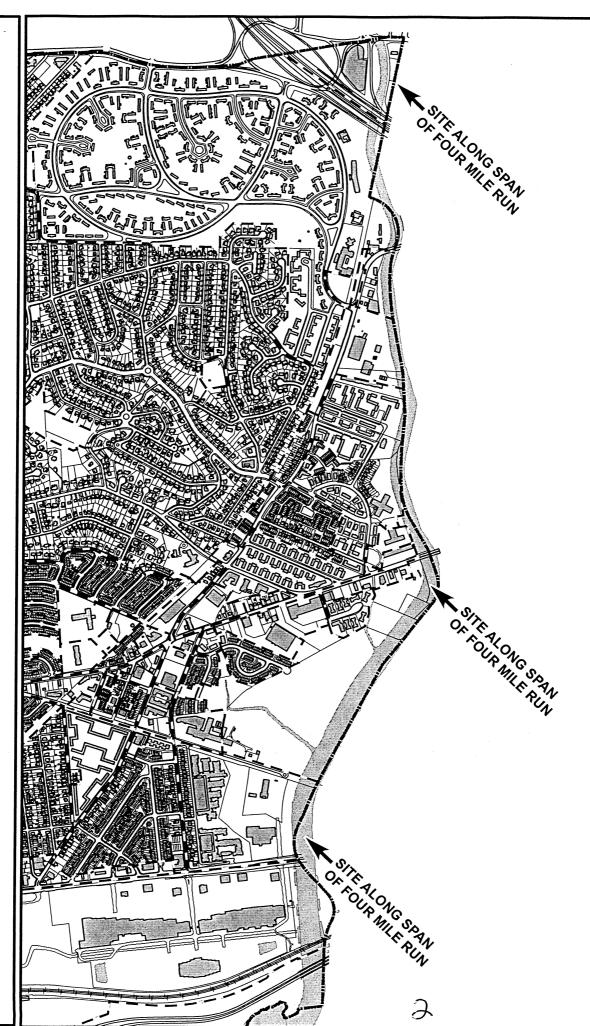
Judy Noritake, Alexandria resident and co-chair of the Four Mile Run Joint Task Force, stated that she has dedicated a tremendous amount of her time over the last five years to this project and that the impetus for the project was the invitation by Arlington County to participate with them to plan for the future of Four Mile Run. She noted that Arlington County considers Four Mile Run its waterfront and that the Master Plan reflects big thinking to create a grand plan for the future of Four Mile Run. She stated that significant public and private investment will be occurring in this area over the next ten years, so having the Master Plan and vision in place will direct thoughtful investment decisions that address and improve Four Mile Run.

Neal Sigmon, Arlington County resident and co-chair of the Four Mile Run Joint Task Force, stated that last Monday night, the Arlington County Planning Commission unanimously voted to take the Master Plan forward and that it will be heard by the Arlington County Board on Tuesday night, March 14, 2006. He stated that many residents pass by Four Mile Run during their daily lives and noted that the environmental potential of Four Mile Run has not been realized. He said that the residents had ideas about how to improve it, but until this process, did not have an opportunity to share these ideas and think about the stream. He stated that this master planning process and the elements of the Master Plan will encourage residents of both jurisdictions to come to Four Mile Run.

Jim Hurysz, Arlington resident who is running for the United States Congress, stated that he has heard from people who do not attend civic meetings or normally participate in planning processes, that they have concerns about flooding, debris consisting of glass and plastic bottles in Four Mile Run, inadequate open space due to the development of Potomac Yard and a concern about the potential loss of affordable housing.

Jim Snyder, Alexandria resident, stated that he supports the Master Plan and noted that the challenge will be implementing the Master Plan. He encouraged the provision of active recreation uses for the new residents who will be living at Potomac Yard, including the reuse of the bridges at Potomac Yard with recreation uses and to facilitate the ability for people to get onto the Potomac River.







STAFF RECOMMENDATION:

That the Planning Commission, by resolution, recommend approval of the Four Mile Run Restoration Master Plan as an amendment to the City's Master Plan, including the revised language of the two text boxes located on pages 19 and 48 of the Four Mile Run Restoration Master Plan dated January 2006.

BACKGROUND:

No changes are proposed to existing land use designations or zoning as part of this amendment to the City's Master Plan.

The Four Mile Run Restoration Master Plan (Master Plan) is a project to restore roughly two miles of a highly degraded and impacted stream in Northern Virginia. The stream, Four Mile Run, is a 9-mile long stream located in a highly urbanized area that includes portions of Arlington County and the City of Alexandria. The watershed also includes Fairfax County and the City of Falls Church. The lower portion of Four Mile Run, from I-395 at the upstream end to the mouth at Ronald Reagan Washington National Airport, is contained in a hardened flood channel and marks a rough boundary between Arlington County and the City of Alexandria. This channel was constructed in the 1970's by the U.S. Army Corps of Engineers to provide flood protection to Alexandria and Arlington after Hurricane Agnes severely flooded this area. It is this 2.3-mile hardened flood control channel, or levee corridor, that is the focus of the Restoration Master Plan.

The Four Mile Run Restoration Master Plan is a long range plan, which could take up to 20-30 years to implement. The magnitude of this project, including its \$261.0 million cost (excluding \$94.0 million for undergrounding of powerlines) will result in this plan being implemented over a number of decades. Implementation will be highly dependent on the availability of substantial federal and state grants as well as joint local funding by the City of Alexandria and Arlington County. The adoption of this plan does not commit the City of Alexandria, or Arlington County. to fund this Master Plan but provides a roadmap through the guiding principles and conceptual design options to use as opportunities to gain funding, as funding possibilities arise, and as redevelopment occurs within the corridor as the corridor is restored. Funding for improvements within the corridor will most likely be phased over a long period of time, and due to the joint effort of both the City of Alexandria and Arlington County, shared between both jurisdictions. This Master Plan provides guidance for stream restoration, future recreation, the placement of new public infrastructure and the replacement of existing infrastructure, once it has reached its useful life. The Master Plan discusses a variety of funding sources and strategies, ranging from local funds to state/federal grants and matching funds to public/private partnerships. Funding for all elements of the Master Plan are subject to competition in the City's Capital Improvement Program (CIP) with all other City projects for limited public funds. The current City CIP is already not fully funding all City capital facility and infrastructure needs, so the competition for

new funding will be present for the foreseeable future. There is potential for significant leveraged federal funding for the flood control and environmental restoration elements of the Master Plan, through the City and County's partnership with the U.S. Army Corps of Engineers.

HISTORY

In 2000, a joint effort between the City of Alexandria and Arlington County, through Congressman James P. Moran's office, secured an EPA grant of \$1 million dollars in funding for a joint Arlington-Alexandria study to include the "demonstration of environmental improvements to Four Mile Run". Subsequently, the Congressman secured appropriations for the U.S. Army Corps of Engineers to be actively involved in the project. Partnering with Arlington County, the U.S. Army Corps of Engineers (USACE), and the Northern Virginia Regional Commission (NVRC), the City of Alexandria began a 6 year process to develop the Four Mile Run Restoration Master Plan (Master Plan). The City-County Agency Coordinating Group (ACG) was formed in 2002. In addition, in early summer 2003, an eighteen member citizen Joint Task Force (JTF) was formed with citizens from both jurisdictions. Members of the JTF were appointed by the City Manager and County Manager of each jurisdiction.

Alexandria JTF Members

Arlington JTF Members

| Judy Noritake, Alexandria Park & Rec Commission, JTF Co-Chair | Neal Sigmon, Arlington County Park & Rec Commission, JTF Co-Chair | |
|---|---|--|
| Jesse Jennings, Alexandria Planning Commission | Carrie Johnson, Arlington County Planning Commission | |
| Ripley Forbes, Alexandria Park & Rec Commission | Mike Steger, Arlington County Park & Rec Commission | |
| Victor Addison, Jr. (reassigned), Alexandria Environmental Policy Commission | Liz Birnbaum, Arlington County Environment and Energy Conservation Commission | |
| Joe McCoy, Alexandria Citizen Representative | Eric Murdock, Arlington County Transportation Commission | |
| LaVerne Warlick, Lynhaven Civic Association (Alexandria) | Ted Saks, Aurora Highlands Civic Association (Arlington) | |
| Betty King, Hume Springs Civic Association (Alexandria) | Whitney Long, Arlington Ridge Civic Association (Arlington) | |
| Kevin Beekman, Alexandria Citizen Representative | John Fourcade, Long Branch Creek Civic Association (Arlington) | |
| Claire Eberwein, Representative from Rep. Jim Moran's Office | Dan Kohlhepp, Crescent Resources | |

The JTF was charged with gathering community information and input and was the main vehicle for community involvement during the study process. The JTF hosted meetings, conducted fact-finding discussions and initiated additional public involvement platforms. In addition, the JTF coordinated

the public awareness effort regarding the study. The JTF developed ground rules, operating procedures and methods to achieve its charge.

The JTF made recommendations that pertained to the study and the project to the Agency Coordination Group (ACG). The ACG was comprised of City and County staff from the Departments of Recreation, Parks and Cultural Activities, Planning and Zoning, and Transportation and Environmental Services, the U.S. Army Corps of Engineers staff, a representative from the Northern Virginia Regional Commission (NVRC), and other specific agencies necessary to review the JTF's recommendations. The ACG reviewed the JTF's recommendations and information gathered in the course of the study and project. In 2004, the ACG selected a consultant team spearheaded by Rhodeside and Harwell, Inc. and included CH2M Hill, Biohabitates, Inc. and Waterscapes, Inc., which provided the professional and support services to develop the Master Plan. This final report includes, among other points, the JTF's recommendations and any ACG comments on them. The final Master Plan document was reviewed by the relevant advisory commissions in each jurisdiction and is now under consideration by the Alexandria Planning Commission and the Arlington County Planning Commission, for recommendation of approval to the Alexandria City Council, and Arlington County Board to be adopted and included their respective Comprehensive Master Plans. (Attachment 1, Park and Recreation Commission Letter of Recommendation & Attachment 2, Environmental Policy Committee Letter of Recommendation)

The public process included a joint kick-off press event (July 7, 2003), monthly JTF meetings, monthly ACG Meetings, a very well-attended community visioning session (February 5, 2005), roundtable discussions, two update presentations to City Council and four community open houses. All comments received throughout the process were captured and posted on the project's website that is maintained by the NVRC: http://www.novaregion.org/history.htm. In addition, the NVRC website offers current and historical information about Four Mile Run and the master planning process, along with upcoming meeting announcements. An email distribution list was created to notify people about community meetings and other events related to Four Mile Run. ACG staff attended civic association meetings and other community events, and wrote newsletter articles (including FYI Alexandria) to promote awareness of and participation in the Four Mile Run effort. Included in the broader effort underway was the focus on the watershed as a whole. In early 2004, Alexandria and Arlington executed a formal cost-sharing agreement with the USACE for a watershed-wide Four Mile Run restoration Feasibility Study, which will eventually incorporate the Master Plan for the restoration of the levee corridor as well as analyses and recommendations for restoration projects throughout the watershed. Projects identified in this study, including components of the Master Plan, will be eligible for federal construction cost share funds. The Master Plan can be viewed on-line at the website listed above. (Attachment 3, U.S. Army Corps of Engineers Letter of Support)

FLOOD PROTECTION

As part of the Four Mile Run Master Plan process, the NVRC, in coordination with the U.S. Army Corps of Engineers, conducted an updated hydraulics and hydrology analysis of the channel. This analysis was undertaken to establish the limits of improvements within the channel that could be

provided without negatively impacting the channel's ability to carry the flow from a 100-year flood event. The 100-year flood event is defined as the 1 percent probability of a flood event occurring during any given year.

As a result of this analysis, the estimate of the flow of water which constitutes a 100-year event in Four Mile Run could be reduced by about 30 percent, from 22,500 cubic feet per second to 15,970 cubic feet per second. In effect, based on knowledge and data available today, we now can state that when the U.S. Army Corps of Engineers designed the Four Mile Run project in the 70's, the project's flood handling capacity calculated was more than was necessary. This reduction in the flow is based on the longer historical record data available today. Based on this new flow, the Flood Insurance Rate Maps (FIRM) for the City of Alexandria and Arlington County will be adjusted by the Federal Emergency Management Agency (FEMA). This will result in some properties that are currently mapped in the 100-year flood plain being removed from that designation. This means that those properties will no longer be required by federal law to purchase flood insurance if they hold a federally backed mortgage. If those properties choose to continue with flood insurance coverage, they will be able to purchase the insurance at a reduced rate. While these properties will not be technically in the 100-year floodplain, they may still be subject to flooding, as all calculation based upon statistical models tract project probabilities. City staff will be implementing a public outreach program with FEMA to work with all of these properties and discuss their risk of flooding and options for insurance.

Part of the hydraulics and hydrology analysis evaluated the impact of the proposed Master Plan improvements on the flood carrying capacity of Four Mile Run. These improvements do decrease the capacity of the channel slightly, and increase the area and depth of the 100-year flood plain. However, this increased area is small and is less than the area of the previous 100-year floodplain, based on the flow value of 22,500 cubic feet per second. The implementation phase of the Master Plan will evaluate ways to mitigate the risk of flooding to this area including measures such as constructing berms.

Alexandria and Arlington County staff are recommending modifying the language included in two text boxes in the Master Plan that relate to the 100-year storm and flooding. These text boxes appear on pages 19 and 48 of the Master Plan. Staff and the Agency Coordination Group believe that the proposed changes both clarify and expand on the discussion regarding the flood protection. The proposed change to the text box on page 19 clarifies that the new flow of water calculated to constitute the 100-year flood event is based on a longer period of record regarding flows in the channel, leading to the prediction of a smaller magnitude event. The proposed change to the text box on page 48 clarifies that while the proposed Master Plan improvements do raise the flood elevation in the model performed by the Army Corps, the model will be refined as each phase of the plan is implemented. The implementation of these improvements will result in changes in topography that may be mitigate the increase in the flood levels. (See Attachment 4, Master Plan Text Boxes Revised Language)

FOUR MILE RUN RESTORATION MASTER PLAN

The purpose of the Master Plan is to provide a framework and vision for future changes in the Four Mile Run corridor. The Master Plan seeks to direct future public and private land use decisions and investment in the area in a manner that both promotes environmental restoration of the stream and encourages access and connections to the stream and the adjacent jurisdictions. The Master Plan envisions that the Four Mile Run corridor will become a model of urban ecological restoration and will help to overcome the legacy of past decision-making related to land uses and the siting of infrastructure that have contributed to the sense of isolation and created a barrier between the stream and the adjacent neighborhoods in both jurisdictions.

Through the sensitive and sustainable integration of natural areas with active urban nodes, the Four Mile Run corridor will be a place where the communities of Alexandria and Arlington County can gather, recreate and celebrate a shared waterfront legacy. Guiding Principles to achieve this goal were developed, based on community and governmental input, which include eight key elements:

- (1) *Flood protection*. Maintain a minimum 100 year event flood protection; examine the current extent of the 100 year flood-prone area; and explore flood protection measures for areas not currently protected.
- (2) **Environment.** Create a "dynamically stable stream channel" using natural stream channel design techniques; improve corridor habitat and ecology to support native terrestrial and aquatic plant and animal species; and develop upstream strategies to improve water quality in the stream and the environmental quality and long-term viability of a restored levee corridor.
- (3) Aesthetics and design. Improve overall corridor aesthetics and viewshed opportunities; encourage urban design that develops the corridor's aesthetics and reflects the excitement of the watershed citizenry for this resource; incorporate "green design" principles for all design and development activities within and adjacent to the corridor; and incorporate innovative and creative urban design and watershed solutions.
- (4) Recreation and urban life. Enhance existing recreational opportunities; create new recreational opportunities that afford interaction with the waters of Four Mile Run; develop urban life opportunities alone the Four Mile Run corridor; and encourage appropriate siting of recreational facilities in the context of the overall project goals.
- (5) Integration and balance. Connect the project to the efforts underway in the watershed to improve the water quality of Four Mile Run; integrate the corridor with surrounding communities and proposed adjacent urban development efforts; and coordinate with other ongoing planning activities such as the Four TMDL/Implementation Plan (which strives to create a cleaner Four Mile Run through pollutant reduction) the local Chesapeake Bay Preservation Act programs, the Potomac Tributary Strategies, affordable housing initiative, recent master planning efforts such as the Arlandria Neighborhood Plan and

similar planning efforts in Arlington County, such as the Shirlington, and other planning and economic development activities.

- (6) Access and connectivity. Create a place for people to reconnect with water and nature within an urban context; increase pedestrian and bicycle access and amenities; ensure that Four Mile Run is accessible to all who wish to use it; increase connectivity between the two communities; and enhance the corridor's effectiveness as a non-motorized and mass transit corridor.
- (7) **Education and interaction.** Provide interpretive opportunities to educate and inform the public about the stream corridor; and stress the interrelatedness of positive individual, institutional, and political actions and behavior changes with improved water quality and habitat in the corridor.
- (8) *The planning horizon*. Think big-create a plan that provides the parameters for change over time as opportunities become available; and provide a mix of short-term discrete improvements blended with long-term large-scale corridor changes.

The Master Plan describes the characteristics of the 2.3 mile corridor study area as it exists today (Chapter 2), the process used to develop the Master Plan (Chapter 3), the elements of the Master Plan Vision (Chapter 4), the design language to create the vision (Chapter 5), and the range of implementation strategies and preliminary cost assessments to achieve the vision (Chapter 6).

THE VISION

The Master Plan for Four Mile Run transforms the corridor by incorporating improvements in environmental quality, open space amenities, transportation options and improving the overall quality of urban life within the near-stream area.

Highlights of the Vision:

A. Environment

The Master Plan emphasizes the "greening" of the Four Mile Run corridor. Flood protection remains the most important element, but through channel restoration and stabilization, Four Mile Run becomes a model of environmental responsibility with a healthy ecosystem.

Hydrology and flood control are the core of the plan. The ecological character of the corridor will be restored with the creation of new habitat area and significant improvements to existing habitat areas. Comprehensive stormwater management techniques will be incorporated throughout the corridor to reduce, retain, and filter stormwater such as daylighting and bioretention, before it reaches the stream. Litter control was identified as a major concern within the corridor. The Master Plan identifies several stormwater management facilities that can be installed to help control trash entering the steam. Green Building technologies will be incorporated in development as redevelopment occurs. The inclusion of a small, neighborhood-

serving recycling station within the corridor will facilitate educational opportunities to teach community awareness and encourage participation at the local level.

B. Public Spaces

The Master Plan envisions a vibrant public realm that functions as a destination for nearby residents and visitors. It recognizes and addresses the importance of accessibility for all. The network of trails and pedestrian bridges provides significantly improved access to almost all parts of the corridor and safe connections to neighborhoods in Alexandria and Arlington. A commuter trail is maintained through the corridor with the addition of a recreational, or community trail on the south side of the Run. There are informal trails, ramps, and stream crossings. Pedestrian/cyclist bridges will connect Alexandria and Arlington together, such as a proposed non-vehicular bridge spanning Four Mile Run between S. Eads Street and Commonwealth Avenue. Promenades and plazas will attract activity and visitors, and the open lawn or "green spaces", sports facilities and public art will add character, meaning and direction to the corridor. In particular, art that addresses the history and ecology of the area and a relationship to the space is strongly encouraged as part of this Master Plan. It is envisioned that the main activity centers along Four Mile Run in Alexandria would be located at Potomac Yard, at Mt. Vernon Avenue and the Four Mile Run Park and adjacent commercial properties in Arlandria, and along West Glebe Road near the boundary with Arlington County. Conceptual renderings of both the Potomac Yard and Mt. Vernon Avenue areas are included in the draft Master Plan (see pages 44-46). These areas would provide opportunities to interact with the stream along with active and passive recreational opportunities for users of all ages, and be integrated into the urban fabric. The balance of land along Four Mile Run is envisioned as being in a more natural state, with environmental restoration of the stream banks where possible and appropriate. Included in this Master Plan is a study to underground the power lines within the corridor. While the Master Plan considers this a desirable long-term outcome, the vision also accommodates above-ground power lines.

The Master Plan identifies the need to, at a minimum, maintain the current recreational facilities, specifically, the current number of fields. The Master Plan acknowledges that future realignment of the Four Mile Run multi-purpose field and relocation of the ball field toward Mt. Vernon Avenue could open the potential for wetland enhancement. These field renovations would require adequate timing and sequence within the City's overall field renovation schedule, to ensure that play time continues in a favorable manner. This Master Plan does not change the current plans for the renovation of the Four Mile Run multi-purpose field, or current timeline associated with the field development.

Maintenance for the enhanced Four Mile Run will be incorporated in both the existing interjurisdictional agreements, and within the existing resources. The Master Plan anticipates quality, sustainable restoration, with native plant materials and species appropriate to the conditions of the restored channel.

C. Built Features

The Master Plan envisions a built environment that both acknowledges and respects the stream and contributes positively to the public realm. The highest quality of form and materials that supports the Master Plan vision should be used in the design approach. Any new development within the corridor should engage, and directly face and turn its face to, the stream. The Master Plan recognizes the importance of providing affordable housing to ensure that the surrounding community maintains its diverse character, and that the restored Four Mile Run is a community asset that serves all. As new development occurs within the corridor, the Master Plan promotes the City's adopted affordable housing policy. Transportation options within the Master Plan encourage change in the way the corridor currently functions, as a place where people pass through. As opportunities present themselves, revised intersections and improvements should be considered to facilitate compatibility with the restored corridor. The transportation improvements proposed in the Master Plan will require future studies, additional information and community outreach to assess the viability of the individual project. While not actively seeking funding for infrastructure improvements, until such time replacement is deemed necessary, the Master Plan identifies areas that could benefit from future design considerations.

THE IMPLEMENTATION OF THE MASTER PLAN

Next Steps:

A. Demonstration Project

As part of the funding for the master planning effort through the EPA grant, a demonstration project is proposed that will implement a representative segment of the Master Plan. This is the only current priority within the Master Plan to be implemented at this time.

Funding for this project is set aside in the amount of \$3.3 million dollars, \$300,000 from the initial grant and additional matched funding from a federal State and Tribal Assistance Grant (STAG) grant (\$1.5 million), with both jurisdictions contributing to the match (\$600,000 from each jurisdiction) Funding for the pedestrian/bicycle bridge will be dependent on securing funds through other grant opportunities, such as state and federal transportation grants. The process for identifying the preferred project is grounded in the hydrologic need to limit initial construction to the tidal portion of the corridor from Mount Vernon Avenue to Potomac Yard, where the flow regimes are more stable. Both the ACG and the JTF identified five options within the reach and evaluated the potential for each project based on the following criteria:

- A project that ties together Arlington and Alexandria's communities
- A project that demonstrates visible environmental, engineering and design improvements
- The "Aha!" factor: a visible project that will be noted as a significant, positive change for the corridor
- A project that will be sustainable, involving limited risks of high water caused failure (or "blow-out") of the in-stream restoration work
- A project that does not require private land acquisition at this time
- A project that can work with the existing transmission lines in place

Based on the criteria and funding, the following components outline the proposed demonstration project:

- The removal of the gabions (ie: wire cages filled with crushed stone that are often stacked and used to reduce erosion along steep slopes and streambanks) on both sides of the stream
- The restoration of stream banks on both sides of the stream
- Creation of a tidal bar
- Litter control
- Information box (signage explaining the project)
- The construction of the Commonwealth Avenue pedestrian/bicyclist bridge (with additional funds to be secured through TEA-21 grants)

B. The U.S. Army Corps of Engineers' Feasibility Study

In addition to the Master Plan process, there is a broader watershed scale effort in partnership with the U.S. Army Corps of Engineers (USACE). The USACE joined with Arlington and Alexandria to conduct a feasibility study for environmental enhancements and flood protection. The study will become a road map for enhancing water quality, ecology, and sustainability throughout the Four Mile Run watershed, and specifically in the levee corridor.

C. Coordination and Management

There are a variety of management structures highlighted within Chapter 6 of the Master Plan. As projects come forward to be implemented, coordination and management styles will be incorporated into the implementation process.

FISCAL IMPACT

The Four Mile Run Restoration Master Plan is a long-term (ie, decades long) vision for the future of the lower Four Mile Run corridor and a framework for developing this vision. The adoption of this plan does not commit the City of Alexandria, or Arlington County, to implementation of this Master Plan but provides a roadmap through the guiding principles and conceptual design options to use as opportunities to gain funding, as funding possibilities arise, and as redevelopment occurs within the corridor as the corridor is restored. Implementation of any master plan (transportation, open space, etc.) is subject to future funding and resource allocations and priorities. The concept-level cost estimate for all of the components of the Master Plan for Areas 1-7 totals \$261 million, not including \$94.0 million for undergrounding the power lines, (see page 98, Order of Magnitude Cost Estimate). An overall cost breakdown of the major elements within the Master Plan and the possible funding sources describes the variety of funding opportunities for implementation (Attachment 5, Snapshots of Costs for Major Elements). There are additional possible private stormwater management costs of \$4.5 million dollars, if and when redevelopment occurs within the corridor. Of the \$261 million, 27% (with a possible additional 10% depending upon design) would be considered eligible for the U.S. Army Corps of Engineers cost sharing construction programs, most of which match at a very low

amount. Also, through aggressive grant research, additional funding of the future implementation costs could be secured through state and federal grants. For example for some of in-channel stream restoration elements (\$70.5 million) the U.S. Army Corps of Engineers could (subject to federal funding allocations) fund about \$14 million of the eligible costs.

Local funding which would generally be split 50%/50% between the City of Alexandria and Arlington County would need to be provided through each jurisdiction's Capital Improvement Program (CIP) planning and funding process. The merits of each phase of the Four Mile Run Restoration Project would need to compete for funding with other facility and infrastructure needs as both jurisdictions CIP's now are not in a position to be substantially expanded. In the City's case there is already desirable and needed CIP projects <u>not</u> funded in the current FY 2007-FY2012 proposed CIP. State and federal funding possibilities are also likely to be limited as those entities also have significant budget constraints.

The power line undergrounding study was commissioned as a direct result of the significant public discourse on the topic. In order to gain a better understanding of the feasibility of undergrounding these lines, both physically and financially, the ACG tasked RHI and CH2M Hill to investigate the feasibility of undergrounding the power lines. Through their work, they examined two separate technologies that have been used to underground similar power lines, Pipe-type, which is the tried-and-true technology that has been in existence since the early 1920s, and XLPE which has a shorter track record dating back only to the 1990s and in discussions with Dominion Virginia Power is met with some skepticism. Once the analysis was completed it was revealed that in the Four Mile Run situation the XLPE installation would be more expensive than a pipe-type installation. Since most engineering efforts are implemented through valueengineering judgments staff deemed it appropriate to use the less expensive and more readily accepted technology in our planning level cost estimate. The cost associated with the undergrounding using the pipe-type technology is \$94 million dollars. The range for the undergrounding is \$94 million on the low end and \$175 million on the high end. While undergrounding the power lines is desired by the community and technically feasible, the cost to do this work is exceptionally expensive and unlikely to be undertaken. If there is a need in the future for the infrastructure to be upgraded, these studies would be taken into consideration.

The Four Mile Run Restoration Master Plan is a long range plan, which could take up to 20-30 years to implement. Funding for these improvements will most likely be phased over a long period of time. The costs will be shared between both jurisdictions and will be dependent on substantial state and federal allocations. This Master Plan provides guidance on the placement of new public infrastructure and the replacement of existing infrastructure, once it has reached its useful life.

The Master Plan discusses a variety of funding sources and strategies, ranging from local funds to state/federal grants and matching funds to public/private partnerships. These will be explored in the next phase of the project. Funding for these and all capital projects are subject to competition among all City projects for limited public funds. There is potential for significant leveraged federal funding for the flood control and environmental restoration elements of the master plan.

CONSISTENCY WITH CITY COUNCIL STRATEGIC PLAN

Of particular relevance to the Master Plan, among City Council's Strategic Plan goals is Goal #2: A City That Respects, Protects And Enhances The Natural Environment. This goal identifies six objectives aimed at approaching new development and redevelopment and public facilities in an environmentally sensitive way; increasing the amount of open space, recreation space and park acreage per resident; protecting and expanding the city's overall tree canopy; improving the appearance of gateways, entrances and corridors, increasing the number of people who travel in the City by mass transit, bicycling or walking and become less auto dependent and; improving the quality of air and water in Alexandria. It is also noted that among the management actions identified in the Strategic Plan for this goal is the Four Mile Run Restoration Master Plan (Goal 2, Action 10, Alexandria City Council Strategic Plan).

The Four Mile Run Restoration Master Plan fully supports and encourages environmental restoration improvements for Four Mile Run that achieve City Council's goal of respecting, protecting, and enhancing the natural environment. Rigorous study of existing in-stream and near-stream conditions of Four Mile Run underpin the many environmental and habitat restoration improvements, such as the partial removal of floodwalls, gabions, and riprap and replacement with environmentally sensitive bank stabilization methods. The inclusion of sand bars, riparian edge plantings, enhancements to the existing wetlands at Four Mile Run Park, daylighting of streams, removal of invasive species and replacement with native plants, will all contribute to restoring the natural stream environment.

With regard to new development or redevelopment of properties that abut Four Mile Run, the Master Plan identifies general planning principles for building form, orientation and set backs to ensure that new construction engages and addresses Four Mile Run and promotes public accessibility and visibility to the stream. The Master Plan also includes a variety of stormwater management techniques to control run-off, promotes sustainable building and design, and encourages environmental stewardship of the stream by residents and businesses.

The Master Plan also fully supports Council's desire to increase the number of people who walk, bicycle or take public transportation rather than rely upon their automobile. The Master Plan recommends the establishment of new walking and bicycle trails, with non-vehicular connections across Four Mile Run, to increase the connectivity between the City and Arlington County. The community strongly desires these connections to satisfy their recreational and non-recreational needs, and staff heard consistently that people want to be able to walk or bicycle safely from their neighborhoods to Four Mile Run and beyond. The community also expressed a desire to be able to access Four Mile Run by public transportation, especially on the weekends and holidays when people have more time for leisure. The Four Mile Run Restoration Master Plan is consistent with Council's express goal of respecting, protecting and enhancing the natural environment.

CONCLUSION

The Four Mile Run restoration Master Plan presents a plan and strategy for the short-term (demonstration projects) and the long-term future of the near-stream and levee corridor that implements stream restoration, flood protection, aesthetic improvements, viewshed opportunities, green technology, recreational and urban life opportunities to create a balance between the natural elements of a restored corridor and urban activity areas. All this, in order to generate a lively, safe and well-used public resource which both the City of Alexandria and Arlington County can look upon as the front door to both communities.

STAFF:

Mark Jinks, Deputy City Manager, City Managers Office
Kirk Kincannon, Director, Parks, Recreation and Cultural Activities
Aimee Vosper, Landscape Architect Supervisor, Parks, Recreation and Cultural Activities
Eileen Fogarty, Director, Planning and Zoning
Kathleen Beeton, Urban Planner, Planning and Zoning
Emily Baker, City Engineer, Transportation and Environmental Services
William Skrabak, Division Chief, Environmental Quality
Claudia Hamblin-Katnik, Watershed Program Administrator



DEPARTMENT OF RECREATION, PARKS AND CULTURAL ACTIVITIES

Kirk Kincannon Director 1108 Jefferson Street Alexandria, Virginia 22314-3999 Phone (703) 838-4343 Fax (703) 838-6344

Park and Recreation Commission

February 16, 2006

Mayor William D. Euille
Vice Mayor Redella Pepper
Councilman Ludwig Gaines
Councilman K. Rob Krupicka
Councilman Andrew Macdonald
Councilman Paul Smedberg
Councilwoman Joyce Woodson

Re: Endorsement of Four Mile Run Draft Restoration Master Plan

Dear Mayor and City Council:

At the Park and Recreation Commission's regular January meeting we received a final presentation and copies of the draft Four Mile Run Restoration Master Plan. It is our pleasure to offer our full support to the City's adoption of this important document as presented.

It is our hope that this master plan will guide the innovative development of recreational and natural features along this waterway. This project area represents a large and important section of the Green Crescent identified in the City's Open Space Master Plan. The re-greening and enhancement of the stream and near-stream environment over the next several decades has the potential to fulfill that part of the Open Space Plan. While the vision represented in this master plan document will require a significant commitment on behalf of Alexandria citizens and our neighbors in Arlington County, we feel it is critically important to move forward with steady progress to implement this shared vision.

This commission looks forward to participating in the detailed planning that will follow adoption of the Master Plan and stand ready to assist in any way we can. We think this is going to be a great project, worthy of the full support of the City Council and citizens of our community.

Sincerely,

Judy R. Guse-Noritake, Chair

Park and Recreation Commission

Juse Nartake

CC:

Jim Hartmann

Kirk Kincannon

Park and Recreation Commissioners

ci.alexandria.va.us





City of Alexandria, Virginia

Alexandria Environmental Policy Commission



P. O. Box 178

Alexandria, Virginia 22313

January 31, 2006

Mayor and City Council of Alexandria City Hall 301 King Street Alexandria, VA 22314

Re: Four Mile Run Master Plan

Dear Mayor Euille and Members of Council:

The Environmental Policy Commission (EPC) has reviewed the Four Mile Run Master Plan and wholeheartedly endorses the Master Plan and applauds the efforts by all those associated with developing the Master Plan. The EPC is particularly encouraged by the following elements of the Master Plan:

- 1. This Master Plan integrates in a very positive and creative way: flood protection; advanced designs to improve corridor and stream habitat for aquatic and near-aquatic organisms; and urban life aesthetics and recreation opportunities.
- 2. It provides a model for developing and achieving long-term environmental goals involving multiple jurisdictions.
- 3. It is planning on a grand scale that establishes an ultimate vision while still providing opportunities for flexibility in timing and funding. The EPC believes that the incremental steps allowed in the Master Plan will lead to the most efficient use of funds for all jurisdictions involved.
- 4. The Master Plan is supportive of and consistent with the Water Quality Management Plan adopted by the City Council in 2001, and stresses providing access to and opportunities for public education and outreach.
- 5. The Master Plan is supportive of the Nature Center concept and incorporates elements that reduce litter and encourage recycling in conjunction with the nature center.

Mayor and City Council of Alexandria January 31, 2006 Page 2

The EPC also recommends that:

- 1. As implementation of the Master Plan moves forward, the EPC encourages that baseline environmental conditions be evaluated and measurements for stream restoration success be established and monitored.
- 2. The EPC strongly recommends including monies for implementation of the Master Plan in its annual capital improvements budget. Such funds could be used for matching grants and federal funding.
- 3. The EPC encourages the City Council to lend its support to the Master Plan as expeditiously as possible.

The EPC looks forward to continued participation in the monitoring and implementation of the Four Mile Run Master Plan.

Should you have any questions regarding this recommendation, please contact us.

Sincerely,

Danielle Fidler

Chair, Environmental Policy Commission

cc: James K. Hartmann, City Manager
Rich Baier, Director, Department of Transportation and Environmental Services



DEPARTMENT OF THE ARMY BALTIMORE DISTRICT, U.S. ARMY CORPS OF ENGINEERS P.O. BOX 1715 BALTIMORE, MD 21203-1715

March 3, 2006

Programs and Project Management Division

Honorable William D. Euille Mayor of Alexandria 301 King Street Alexandria, Virginia 22314

Dear Mayor Euille:

I would like to commend the City of Alexandria's efforts to explore ecosystem restoration opportunities in the Four Mile Run watershed. The recently released *Four Mile Run Restoration Master Plan* presents a remarkable community vision for the levee corridor's future. In particular, it is notable that the City of Alexandria and Arlington County were able to jointly produce such a wonderful plan in such a short time.

As a stakeholder in the process, the Corps of Engineers embraces this opportunity to marry our traditional focus of flood protection with our evolving mission of ecosystem restoration. This Four Mile Run master plan establishes a new benchmark for transforming a local flood protection project into a vibrant community asset. We look forward to working with the City of Alexandria and Arlington County to implement those master plan features that fall under flood control and ecosystem restoration missions through our ongoing watershed feasibility study. As a part of this process, we will be identifying opportunities for Federal cost-sharing of these master plan elements. In addition, we'll be glad to work with the city's resource agencies on any regulatory permits that would arise from the master plan's implementation.

I look forward to our continued cooperation on and the successful completion of this project. If you have any questions regarding the project, please contact the project manager, Ms. Claire O'Neill, P.E., at (410) 962-0876.

Sincerely,

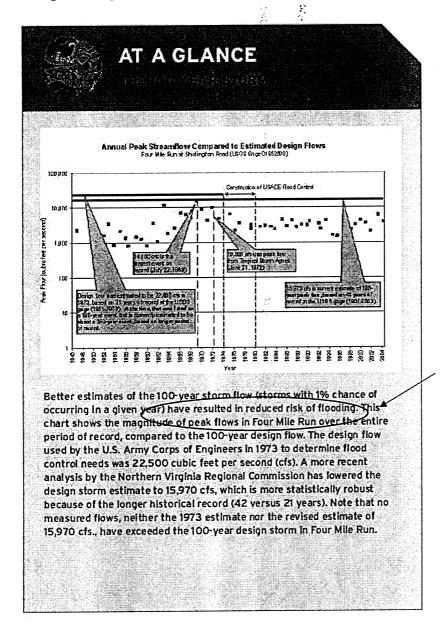
Robert J. Davis

Colonel, Corps of Engineers

District Engineer

Similar letter sent to Arlington County Board Chairman

Change 1 - Page 19 / Text Box - THE 100-YEAR STORM

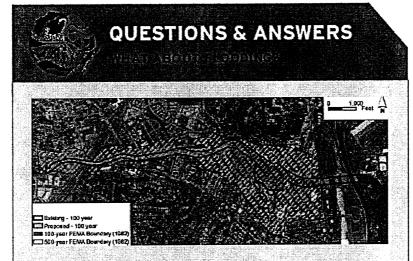


"Better estimates of the 100-year storm flow (storms with the 1% chance of occurring in a given year) have resulted in reduced risk of flooding. This chart shows..."

This should be changed to the following:

Using a longer period of record the statistical analyses to predict the magnitude of the 100-year storm flow (the storm flow with the 1% chance of occurring in a given year) are more precise and in the case of Four Mile Run predicts a smaller magnitude event. This chart shows...

Change 2 - Page 48 - Text Box - WHAT ABOUT FLOODING?



Thanks to a new understanding of Four Mile Run's hydrology and the history of flooding in the stream corridor, we now know that the U.S. Army Corps of Engineers' flood control project was designed in the 1970s for a higher flow than the current 100-year flood event. As a result, it is possible to reintroduce many of the natural characteristics of the stream without compromising protection against a 100-year flood event, the level of protection for which the flood control project was originally intended.

As the restoration effort moves forward, much of the stream corridor can be naturalized through partial removal of the existing gabions and flood walls. The actual extent of these changes will be determined by the outcomes of the Hydrologic and Hydraulic (H & H) modeling study being conducted simultaneously with this master planning effort. This study will ensure that restoration activities will not negatively impact the intended 100-year flood event protection. Although protection will remain for the newly defined 100-year flood, some properties will have less flood protection than they do today. In addition to the flood area being changed slightly in plan view, flood elevations may increase by as much as six inches.

Better estimates of the 100-year storm flow and more accurate topographic information have resulted in reduced risk of flooding compared to FEMA mapping in 1981. A detailed analysis and public outreach process will be conducted as part of the implementation phase for the Master Plan to determine whether the risk of flooding is acceptable to all stakeholders and whether any additional flood mitigation is required.

Paragraph 2:

"As the restoration effort moves forward, much of the stream corridor can be naturalized through partial removal of the existing gabions and flood walls. The actual extent of these changes will be determined by the outcomes of the Hydrologic and Hydraulic (H & H) modeling study being conducted simultaneously with this master planning effort. This study will ensure that restoration activities will not negatively impact the intended 100 year flood event protection. Although protection will remain for the newly defined 100 year flood, some properties will have less flood protection than they do today. In addition to the flood area being changed slightly in plan view, flood elevations may increase by as much as six inches.

Better estimates of the 100 year storm flow and more accurate topographic information have resulted in reduced risk of flooding compared to FEMA mapping in 1981. A detailed analysis and public outreach process will be conducted as part of the implementation phase for the Master Plan to determine whether the risk of flooding is acceptable to all stakeholders and whether any additional flood mitigation is required."

This should be changed to:

"As the restoration effort moves forward, much of the stream corridor can be naturalized through partial removal of the existing gabions and flood walls. The actual extent of these changes will be determined by the outcomes of the Hydrologic and Hydraulic (H & H) modeling study being conducted simultaneously with this master planning effort. Through modeling efforts with the US Army Corps of Engineers that examine various conditions of the channel, including the existing and proposed conditions, it was evidenced that the channel condition proposed by the master plan shows elevated water levels of 12-inches or less in certain areas. However, as implementation of the plan proceeds changes in the project area topography can work to mitigate these elevated water levels to not appreciably effect potential overbank flooding along Four Mile Run to what it is today. What does significantly impact flooding potential on Four Mile Run is the 30 percent reduction in flood magnitude discovered through the updated statistical flood frequency analysis undertaken in 2004. This type of analysis will be ongoing throughout the implementation phase of the project to ensure that when the details of construction designs are available the associated flood impacts are appropriately addressed. including potential flood mitigation. Such efforts will be coordinated with US Army Corps of Engineers and the Federal Emergency Management Agency. Additionally, through this detailed analysis a public outreach process will be conducted as part of the implementation phase for the Master Plan to determine whether the risk of flooding is acceptable to all stakeholders and whether any additional flood mitigation is required."

FOUR MILE RUN RESTORATION MASTER PLAN

Snapshot of Costs for Major Elements of the Master Plan (detailed preliminary costs can be found at: http://www.novaregion.org/master_plan.htm)

| | | Preliminary Estimate | |
|---|--|----------------------|--|
| Element | Location | (\$ in millions) | Possible Funding Source |
| In-Channel Stream Restoration Elements | Throughout the study corridor | \$70.5 | U.S. Army Corps of Engineers (75%) Local Match (25%) of \$29.0 mil. of these costs (ie, \$14 mil. in USACE funds) |
| West Glebe Road Bridge realignment (including demolition) | West Glebe Road interchange | \$18.5 | Transportation Grants and future Infrastructure needs for replacement |
| Pedestrian Bridge | West Glebe area | \$10.9 | Transportation Grants |
| Pedestrian Bridge | Mount Vernon area | \$7.3 | Transportation Grants and Federal transportation earmarks |
| South Glebe Road realignment for "parkway" (Arlington) | Arlington County South Glebe Road | \$4.0 | Transportation Grants and Federal transportation earmarks |
| New Road realignment at Route 1 (future redevelopment) | Route 1 to Four Mile Run Park | \$11.0 | With future redevelopment of the area-through development conditions |
| Demolition of Potomac Yard Bridge | At Potomac Yard | \$1.3 | With future redevelopment and/or Grants |
| Nature Center 2-story/glass/green roof (Proposed on Alexandria side of Four Mile Run) | At the Commonwealth Avenue area | \$4.3 | EPA/Environmental Grants |
| Re-aligned recreation fields | At Mt. Vernon Avenue/Four Mile Run Park | \$0.2 | Future City CIP funding for field renovation |
| New Multi-purpose field at the re-aligned West Glebe road | West Glebe Road Area | \$0.5 | Future City CIP funding for field renovation |
| Landscaping Trees, shrubs, lawns | Throughout the study corridor | \$10.1 | Grants, City and County CIP funding, partnerships |
| Site Furnishings | Throughout the study corridor | \$6.5 mil | Grants, City and County CIP funding, transportation grants, partnerships |
| Trails, Promenades and Plazas | Throughout the study corridor, and at the Mount Vernon Ave/Four Mile Run | \$16.6 | Trail grants, transportation grants, City and County CIP funding and partnerships |
| | Total Major Elements | \$161.7 | |



Case # MPA 2006-0001



February 8, 2006

James K. Hartmann City Manager City of Alexandria 301 King St. Suite 3500 Alexandria, Virginia 22314 (2-1(-:() 034169

Ron Carlee County Manager Arlington County 2100 Clarendon Blvd. Suite 302 Arlington Virginia 22201

RE.: Four Mile Run Restoration Project Update, January 2005

Dear Messrs. Hartman and Carlee:

The Four Mile Run Stream Restoration Joint Task Force (JTF), a County/City Manager appointed citizen panel, enthusiastically and unanimously endorses the draft Four Mile Run Stream Restoration Master Plan. The draft master plan is a model for how two jurisdictions can work together to develop a vision for what the lower Four Mile Run corridor can be: a stream to knit the two communities together in ways that have never been considered, a stream that the two communities can face proudly rather than turning their backs to it and each other.

At its most recent meeting on January 25, 2006, the JTF voiced its strong desire to see the plan adopted by the Alexandria City Council and the Arlington County Board.

The Joint Task Force is particularly pleased with the balance the plan espouses between restoring naturalness to the flood control project that now shapes that part of Four Mile Run while providing urban amenities that residents can enjoy. At the same time, the JTF is ever mindful of the need to maintain adequate flood control. The planning and design represented in this plan have kept the protection of life and property as the foundation of all that is envisioned, but has done it with the creativity and attention this stream and our communities deserve. Flood control, ecological function and good urban design functioning together merge in the remarkable outcome of this wonderful community visioning process.

The Joint Task Force was a critical, vital and active force in shaping the plan. We have met 17 times to date as a separate group and have sponsored five public open houses to facilitate input from interested local residents. It should be noted that this stream reach functions as a federal flood control project and as such, the master plan needed to comply with federal law relative to public involvement. The Joint Task Force's public outreach and open houses fully accomplished that requirement.



Joint Task Force members bring a wide array of skills and interests to this stream restoration project, representing commissions, specific interests and civic associations in their home jurisdictions. In private life, they represent varied professions from architects to lawyers, to teachers but are united in their wish to see lower Four Mile Run reach its potential. Their input has been felt throughout the process in helping shape the form of public input, participating in the development of goals and objectives for the project, and particularly in crystallizing the discussion on defining the first step toward implementation of this long-term and broad ranging project – the demonstration project.

The demonstration project as recommended by the JTF and identified in the master plan, targets the area between the Route 1 bridge over Four Mile Run to Commonwealth Avenue/Eads Street. In this tidal portion of the stream, gabions would be removed from both sides of the stream, a tidal wetland bar would be created and stream banks restored on both sides of the stream. Other features would include a pedestrian/bicyclist bridge to link Eads Street to Commonwealth Avenue, litter control and an information kiosk.

The JTF believes that moving forward with this demonstration project will enable the enthusiasm for the plan among residents to be sustained. In this regard, it is critical to the long-term implementation of the master plan to have adequate financial resources available to move forward with the demonstration project and the work that will follow over many years. At this time, an Environmental Protection Agency matching grant is available for the project. Our local jurisdictions need to step up and match that grant.

It is with great pride that we as co-chairs of the Joint Task Force present its recommendation for adoption of the Four Mile Run Restoration Master Plan. It is a big commitment but that commitment represents a really bright future for this stream and the neighborhoods that surround it.

If you have any questions regarding the project or would like arrange a time to meet to discuss the project further you may contact either of us by phone (Judy: 703.836.4230 or Neal: 703.684.8622) or by e-mail (jnoritake@nka-arch.com or nealsigmon@aol.com).

Sincerely,

Judy Guse-Noritake

Joint Task Force Co-Chair

City of Alexandria

Neal Sigmon

Joint Task Force Co-Chair

Arlington County

cc: County Board Members

City Council Members

M. (W. CMAME

Four Mile Run Joint Task Force Members (by e-mail)

Four Mile Run Agency Coordination Members (by e-mail)

RESOLUTION NO. **MPA 2006-0001**

WHEREAS, under the Provisions of Section 9.05 of the City Charter, the Planning Commission may adopt amendments to the Master Plan of the City of Alexandria and submit to the City Council such revisions in said plans as changing conditions may make necessary; and

WHEREAS, a Joint Task Force and Agency Coordination Group have worked with outside consultants for over two years to assess Four Mile Run.

WHEREAS, there have been numerous public meetings and open houses to gather citizen input on the subject of the future of Four Mile Run, including a community visioning meeting:

WHEREAS, the proposed Four Mile Run Restoration Master Plan has been reviewed by city staff from a number of city agencies; by the Environmental Policy Commission; the Parks and Recreation Commission; by the Joint Task Force; and

WHEREAS, a duly advertised public hearing on the proposed amendment as held on March 9, 2006, with all public testimony and written comment considered; and

WHEREAS, the Planning Commission finds that:

- 1. The proposed amendment is necessary and desirable to guide and accomplish the coordinated, adjusted and harmonious development of the City of Alexandria;
- 2. The proposed amendment is generally consistent with, indeed furthers the overall goals and objectives of the 1992 Master Plan; and
- 3. The proposed amendment includes direction and guidance for the City in its effort to achieve a quality of life for its citizens that includes the restoration of Four Mile Run; and
- 4. Based on the foregoing findings and all other facts and circumstances of which the Planning Commission may properly take notice in making and adopting a master plan for the City of Alexandria, adoption of the Four Mile Run Restoration Master Plan as a chapter of the 1992 Master Plan will, in accordance with present and probable future needs and resources, best promote the health, safety, morals, order, convenience, prosperity and general welfare of the residents of the City;

RESOLUTION NO. MPA 2006-0001
Page 2

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of the City of Alexandria that:

- 1. The Four Mile Run Restoration Master Plan is hereby adopted, including the revised language of the two text boxes located on pages 19 and 48 of the Four Mile Run Restoration Master Plan, in its entirety as a new chapter to the 1992 Master Plan of the City of Alexandria, Virginia in accordance with Section 9.05 of the Charter of the City of Alexandria, Virginia:
- 2. This resolution shall be signed by the Chairman of the Planning Commission and attested by its secretary, and a true copy of this resolution forwarded and certified to the City Council.

ADOPTED the 9th day of March, 2006.

Eric R. Wagner, Chairman

Alexandria Planning Commission

ATTEST:

Eileen P. Fogarty, Secretary

APPLICATION FOR:

| MASTER PLAN AN | MENDMENT | MPA # | 006-000 |
|---|---|--|--|
| [] ZONING MAP AM | ENDMENT | REZ # | |
| PROJECT NAME: For me PROPERTY LOCATION: On The 1 | nile Run between the | ozen Shirlin Potomac T | gton Road Ever on the Se |
| APPLICANT Name: Recreation | • | | |
| Address: <u>Re City O</u> | f Alexandri | a | |
| PROPERTY OWNER Name: | city of Al | exandra | |
| Address: | | | |
| | [] Contract Purchoper [] Lessee | | |
| realtor, or other person for which the in which they are employed have a [] yes: If yes, provide proof of [] no: If no, said agent shall of the UNDERSIGNED certifies that the infort to Section 11-301B of the Zoning Ordinance, notice on the property which is the subject of the Cuty of Alexandra. | business license to ope current City business licenses obtain a business license rmation supplied for this ap hereby grants permission to his application. | rate in Alexandria, cense. prior to filing application is complete a | VA: cation. nd accurate, and, pursuant |
| Print Name of Applicant or Agent | | Signature | |
| 301 King St Mailing/Street Address | | elephone # | Fax # |
| Alexandra, Va 233 City and State Zip Code | <u> </u> | | |
| FOR CITY STAFF USE ONLY: Date application received: Date application complete: | = = = = = = = = = = = = = = = = = = | Paid: \$ | |
| ACTION - PLANNING COMMISSIO | NRecommended Appro | oval 5-0 3/9/06 | |
| ACTION - CITY COUNCIL: 3/18/ | 06 -CC approved the | e PC recommendat | ion 7-0 |
| 07/06/00 advasinals appliformation mas | | | |